I. Claims.

1-43. (Canceled)

44. (Canceled)

45. (Previously presented) Recombinant host cells according to claim 54 wherein said genetically diverse population is derived from in vitro mutagenesis of nucleic acid encoding a member of a specific binding pair.

46. (Previously presented) Recombinant host cells according to claim 45 wherein said member of a specific binding pair comprises a binding domain of an immunoglobulin.

47. (Canceled)

48. (Previously presented) Recombinant host cells according to claim 47 wherein said genetically diverse population is derived from the repertoire of rearranged immunoglobulin genes of an animal immunized with complementary specific binding pair member.

49. (Previously presented) Recombinant host cells according to claim 47 wherein said genetically diverse population is derived from the repertoire of rearranged immunoglobulin genes of an animal not immunized with complementary specific binding pair member.

50. (Previously presented) Recombinant host cells according to claim 46 wherein said member of a specific binding pair is a scFv molecule.

51. (Previously presented) Recombinant host cells according to claim 47 wherein said member of a specific binding pair is a scFv molecule.

52. (Previously presented) Recombinant host cells according to claim 48 wherein said member of a specific binding pair is a scFv molecule.

53. (Previously presented) Recombinant host cells according to claim 49 wherein said member of a specific binding pair is a scFv molecule.

54. (Previously presented). Recombinant host cells each of which harbors a phagemid comprising a nucleic acid fragment encoding one member of a specific binding pair fused to a nucleic acid encoding a gene III coat protein surface component of a filamentous bacteriophage and further comprising an origin of replication of a filamentous bacteriophage, the gene III coat protein surface component encoding nucleic acid and the origin of replication being the only nucleic acid in the phagemid derived from filamentous bacteriophage, whereby the host cells collectively harbor in the phagemids a library of nucleic acid fragments encoding a genetically diverse population of the specific binding pair members, each member of the specific binding pair

capable of being expressed as a fusion protein with the gene III coat protein surface component of a filamentous bacteriophage so that each member of the specific binding pair comprises a functional specific binding domain for its complementary specific binding pair member and whereby upon infection of said recombinant host cells with a helper phage, the phagemids are each packaged into filamentous bacteriophage particles displaying on their surface the functional specific binding pair member as a fusion with the gene III surface component of the filamentous bacteriophage and whereby each filamentous bacteriophage has a coat partially derived from the helper phage and partly from said fusion.